

## **AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions and listings of claims in the application.

### **LISTING OF CLAIMS**

1. (Currently Amended) A semiconductor device comprising:

a gate electrode; and

a gate insulating film for insulating the gate electrode, the gate an insulating film,  
~~the~~ insulating film being formed of an insulative inorganic material as a main material,  
the insulative inorganic material containing silicon and oxygen at least one kind of  
~~element other than silicon, and~~ the insulating film containing hydrogen atoms, and the  
gate insulating film including Si-O(H)-Si structures therein;

wherein the average thickness of the gate insulating film is 10 nm or less, and  
the absorbance of infrared radiation of which wave number is in the range of 3200 to  
3500 cm<sup>-1</sup>, which is derived from an OH structure of any of the Si-O(H)-Si structures  
existing in the gate insulating film, is 0.02 or less when the gate insulating film to which  
an electric field has never been applied is measured with Multi-Reflection Attenuated  
Total Reflection Method Fourier Transform Infrared Spectroscopy at room temperature.

2-3. (Cancelled)

4. (Currently Amended) The semiconductor device as claimed in claim  
3 claim 1, wherein the insulative inorganic material at least one kind of element other

~~than silicon~~ further includes at least one of nitrogen, hafnium, zirconium, and aluminum in addition to oxygen.

5. (Original) The semiconductor device as claimed in claim 1, wherein each hydrogen atom in at least a part of the hydrogen atoms is replaced by a deuterium atom.

6-7. (Cancelled)

8. (Currently Amended) The semiconductor device as claimed in ~~claim 7~~claim 1, wherein the semiconductor device is adapted to be used under the condition that a gate voltage is applied to the gate electrode so that the electric field intensity in the insulating film is 10 MV/cm or less.

9. (Currently Amended) The semiconductor device as claimed in ~~claim 7~~claim 1, wherein a leakage current passing through the gate insulating film in the thickness direction thereof that is measured in a state that at the gate voltage is applied to the gate electrode so that the electric field intensity in the insulating film is 5 MV/cm or less is  $9 \times 10^{-9}$  A/cm<sup>2</sup> or less.

10. (Currently Amended) The semiconductor device as claimed in ~~claim 7~~claim 1, wherein the total amount of electrical charges passing through the gate

insulating film in the thickness direction thereof until a soft breakdown occurs in the insulating film is  $40 \text{ C/cm}^2$  or more.

11. (Currently Amended) The semiconductor device as claimed in claim 7  
claim 1, wherein the total amount of electrical charges passing through the gate insulating film in the thickness direction thereof until a hard breakdown occurs in the insulating film is  $100 \text{ C/cm}^2$  or more.

12. (Cancelled)

13. (Original) An electronic device comprising the semiconductor device defined by claim 1.

14. (Original) An electronic apparatus comprising the electronic device defined by claim 13.